

UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
AIKEN DIVISION

Alacia C. Quinton as PR for the)	Civil Action No.: 1:10-cv-02187-JMC
Estate of April Lynn Quinton,)	
)	
Plaintiff,)	
)	
v.)	
)	
Toyota Motor Corporation, Toyota)	DEFENDANTS' OPPOSITION TO
Motor Sales U.S.A., Inc., Toyota)	PLAINTIFF'S MOTION <i>IN LIMINE</i>
Motor Engineering and)	NO. 3
Manufacturing North America, Inc.;)	
Toyoda Gosei North America)	
Corporation,)	
)	
Defendants.)	
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Defendants, Toyota Motor Corporation, Toyota Motor Sales U.S.A., Inc., Toyota Motor Engineering and Manufacturing North America, Inc., and Toyoda Gosei North America Corporation (hereinafter "Defendants") respectfully request this Court to deny Plaintiff's Motion *In Limine* No. 3 and permit evidence and expert testimony about the relationship between the number of quarter rolls of a vehicle during a rollover crash because such evidence is highly relevant to the severity of such a crash.

I. THE EVIDENCE AT ISSUE

Plaintiff alleges that the 2009 Toyota Camry was not crashworthy and was unreasonably dangerous due to a failure to include a rollover sensor activated curtain shield airbag ("RCSA") that would have deployed in this rollover crash. Nevertheless, Plaintiff seeks to exclude any evidence regarding the relationship between the vehicle's number of quarter turns during the rollover and the corresponding severity of the crash. Defendants seek to introduce evidence from credible, publically available sources of

field accident data discussing the relationship between the risk of injury and the number of rolls. Specifically, Defendants seek to reference motor vehicle crash data collected by the National Highway Traffic Safety Administration (“NHTSA”) that was relied upon by Defendants’ experts and timely disclosed pursuant to Fed. R. Civ. P. 26(a)(2).

Defendants experts rely upon data from the National Accident Sampling System (“NASS”), which was developed by NHTSA to reflect the non-fatal injury experience of occupants in motor vehicle crashes. NASS is composed of two systems—the Crashworthiness Data System (“CDS”) and the General Estimates System (“GES”). NASS/CDS is based on a nationally representative statistical sample of all tow-away accidents that occur on United States roads, while NASS/GES collects detailed data from police crash reports involving hundreds of thousands of minor, serious, and fatal crashes involving passenger cars, pickup trucks, vans, large trucks, motorcycles, and pedestrians. The NASS/GES data is used by NHTSA to understand overall trends of traffic crashes and injuries, while NASS/CDS provides insight into the types of injury, crash types, crash severity, vehicle damage, and other factors associated with a crash.

NHTSA collects, maintains, and relies on the data contained in the NASS database, using the information to evaluate motor vehicle safety, promulgate rules, assess safety standards, and examine defect petitions. The array of NHTSA studies based upon NASS data is impressive and covers everything from amendment to FMVSS 208 (dealing with Passenger Car Front Seat Occupant Protection) to the evaluation of Truck Underride Protection standards found in FMVSS 223 and 224. Moreover, NASS is also regularly relied on by prominent research institutions, defense and plaintiff experts, and the automotive industry engineers and researchers in a variety

of contexts. Statistical evidence testimony based on the NASS databases is routinely admitted in both state and federal courts around the country (see cases cited in section II.a. below). Indeed, this evidence has been relied upon by the U.S. Supreme Court in reaching decisions affecting the course of products liability litigation nationwide. See e.g., Geier v. Am. Honda Motor Co., 529 U.S. 861, 878 (2000) (relying on NASS Crashworthiness Data System in noting that air bags present their own special risks to safety).

II. ARGUMENT

Statistical crash and rollover evidence is highly relevant and probative of the severity of this crash, and is not unfairly prejudicial, or likely to confuse the issues, or mislead the jury. Moreover, Plaintiff's contention that such evidence is inadmissible unless the individual accidents underlying the statistics are substantially similar to the accident conflates the admissibility of other accident evidence offered to prove defect and causation in a particular accident mode with the admissibility of comparative statistical data emerging from the collection of information about accidents generally offered as a component of engineering risk assessment.

a. Statistical evidence of crash severity is relevant under Rule 401.

"Relevant evidence is admissible." Fed. R. Evid. 402. Evidence is relevant if it has "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Fed. R. Evid. 401. In a South Carolina products liability case, one fact of consequence to the action's outcome is whether the product is defective and unreasonably dangerous. See Madden v. Cox, 284 S.C. 574, 579, 328 S.E.2d 108, 112 (Ct.App.1985). For Plaintiff's design claim, this means she must proceed under the risk

utility test, which states a “product is unreasonably dangerous and defective if the danger associated with the use of the product outweighs the utility of the product.” Branham v. Ford Motor Co., 390 S.C. 203, 219, 701 S.E.2d 5, 13 (2010) (quoting Bragg v. Hi-Ranger, Inc., 319 S.C. 531, 543, 462 S.E.2d 321, 328 (Ct. App. 1995)).¹

Evidence of crash severity is unquestionably relevant to balancing the 2009 Camry's dangers and benefits in determining whether or not it is defective. As the Third Circuit explained in Huddell v. Levin, 537 F.2d 726 (3rd Cir. 1976), “[t]he relative severity of the impact [goes] to the **heart of the issue of defectiveness.**” *Id.* at 740 (emphasis added). The Huddell Court reasoned as follows:

[T]he question is whether or not the seat belt or head restraint is faulty. If the seatbelt did not adequately protect its wearer in a 5 m.p.h. crash, then a proper inference might be drawn that the belt was defective; but if a man were killed wearing his seat belt in a 100 m.p.h. crash, could it be argued with the same assurance that the belt was defective? At least in the context of safety design, we see no meaningful way to evaluate the defectiveness vel non of a product except in the context of a particular risk.

Id. at 740-41 (internal quotations omitted). Likewise, in Quintana-Ruiz v. Hyundai Motor Corp., the First Circuit Court of Appeals relied heavily on expert testimony regarding crash severity in order to vacate a plaintiff's verdict in a design defect case. 303 F.3d 62, 71 (1st Cir. 2002). In Quintana, the plaintiff claimed the damages that she suffered in an automobile crash “would have been less had the airbag [in her vehicle] . . . not deployed.” *Id.* at 67. She argued that the serious injuries which airbags are designed to prevent do not occur in accidents with a velocity as low as that involved in her

¹ The risk-utility test further requires Plaintiff to present evidence of a reasonable alternative design, which “must include considerations of the costs, safety, and functionality associated with the alternative design.” Branham, 390 S.C. at 225, 701 S.E.2d at 16.

accident. Id. at 71. The jury agreed. Id. at 68. Reversing based on insufficient evidence, the First Circuit pointed to the substantial expert testimony regarding the velocities at which airbags deploy. See id. at 70-71. In particular, the court noted that, according to the expert testimony, “a significant percentage of serious injuries are the result of [] ‘moderate’ severity accidents,” the classification to which the experts assigned the plaintiff’s accident. Id.

Here, too, the severity of the crash bears significant relevance to determining the safety of Defendants’ airbag system’s design. Evidence pertaining to the speed, attitude, and path of the vehicle, as well as the number of rolls, nature of the vehicle to ground contacts, and forces created during the crash at issue will assist the trier of fact in assessing whether the accident vehicle performed as expected. And as a baseline for that assessment, the jury will need some measure of comparison for assessing the relative severity of a given rollover accident. The statistics in question—taken from government databases relied upon by federal and state officials, industry analysts, and automotive designers—provide that baseline.

As the Huddell court noted, the jury cannot assess a vehicle’s crashworthiness absent the context provided by an understanding of the particular risk. One of the best ways to determine whether or not an automobile was designed to be reasonably safe in foreseeable uses is to look at data showing how vehicles actually perform in a variety of rollover scenarios. Qualification of the relative severity of the crash at issue through statistical evidence will enhance that understanding. See e.g., U.S. v. Gen. Motors, 656 F.Supp. 1555 (D. D.C. 1987) (acknowledging relevance of statistical evidence, as well

as reliability of FARS² and NASS data to make that analysis); Hataway v. Jeep Corp., 679 So.2d 913 (La. App. 1996) (affirming judgment based upon NHTSA statistics, which supported jury's conclusion that vehicle was not unreasonably dangerous). In short, this evidence far exceeds the standard for relevance in federal courts, and it will assist the jury in its determination of the central issue in this case. Thus, the Court should admit such statistics-based evidence and testimony, as well as opinions which rely in part on such evidence.

Finally, Plaintiff incorrectly states that the number of rolls is "irrelevant because Ms. Quinton survives this accident if she was adequately protected from partial ejection." This argument is not persuasive. It incorrectly assumes that a curtain airbag, once deployed, will protect an occupant in a rollover no matter how many rolls occur. First, there is an issue of how long a curtain will remain inflated; at some point, it will lose its inflation and the longer the rollover continues, with more and more vehicle-to-ground contacts, the greater the chance that the airbag will lose whatever ability it may have had to contain the occupant. Second, with multiple vehicle-to-ground contacts, there are more chances for the airbag to get ripped or otherwise lose its containment abilities. See Expert Report of Catherine Corrigan, dated December 3, 2012, attached hereto as **Exhibit A**, pp. 14–15

b. Defendants' experts do not have to be statisticians in order to rely upon analyses of NASS data

Plaintiff argues that Defendants' experts should not be permitted to testify regarding relevant data and statistics because they are not statisticians. Plaintiffs fail to

² "FARS" stands for "Fatality Analysis Reporting Service." It is an annual collection of fatal traffic accident data compiled by NHTSA to provide NHTSA, Congress and the public with information regarding fatalities in motor vehicle crashes.

cite any case law in support of their unfounded argument. NASS is regularly relied on by prominent research institutions, defense and plaintiff experts, and the automotive industry engineers and researchers in a variety of contexts. Statistical evidence testimony based on the NASS databases is routinely admitted in both state and federal courts around the country. And as mentioned above, this evidence has been relied upon by the U.S. Supreme Court in Geier v. Am. Honda Motor Co.

Moreover, Plaintiff's own experts have considered NASS data as part of their work on this case. Plaintiff's expert Joseph Burton's file references a peer reviewed article that discuss the NASS data and the correlation between the risk of injury and the number of rolls in an accident, as follows:

ABSTRACT

The number of rolls, as well as other factors, has been associated with increased injury risk in rollovers. Data from NASS-CDS from 1995-2003 were used to evaluate the biomechanical implications of vehicle kinematics during multiple rolls and to evaluate the risk of injuries to different body regions during rollovers. The data showed that the risk of injury increased with increasing number of rolls. The rate of increase in risk varied by the region of the body affected and injury severity. The increased risk was particularly great when a vehicle rolled more than two complete rolls.

See, e.g., Plaintiff's Trial Exh. 271 (Burton Rollover Bibliography), at p. 10, item no. 108, attached hereto as **Exhibit B**. Likewise, Plaintiff's airbag expert Robert Bowser identified articles containing field accident data that he was supplied (FARS and NASS) . See R. Bowser dep., Nov. 13, 2012 134:3–25; 144:9–145:12, relevant portions attached hereto as **Exhibit C**. Also, Exhibit 14 from Bowser's deposition contains

NASS CDS cases and data, though Bowser claims he did not use it. Id. at 147:21–148:25.

Accordingly, reference to NASS data by experts on both sides demonstrates that these statistics are a type of evidence that is routinely and reasonably relied upon by researchers working in the field of automotive crash safety. The fact that neither Plaintiff's nor Defendants' experts are not statisticians does not eliminate their ability to reasonably rely on this type of data to support their opinions in this case.

c. The accidents upon which the statistics are based need not be substantially similar to the subject accident

Plaintiff next asserts that before admission may be granted, Defendants must make a showing of “substantial similarity” between the accident that is the focus of this litigation and the accidents analyzed by the NASS/CDS database. That argument might have merit if Defendants wanted to introduce the statistics as substantive evidence of how or why the April Quinton accident occurred. See Whaley v. CSX Transp., Inc., 362 S.C. 456, 483, 609 S.E.2d 286, 300 (2005); Branham, 390 S.C. at 230, 701 S.E.2d at 19 (applying Whaley). But it does not apply to statistics offered to show the basis of an expert's opinion. Accident data, separate from the individualized facts of particular accidents, universally forms the basis for engineering and regulatory analyses and determinations outside the litigation context, making it entirely admissible under South Carolina law and federal evidentiary law. Under Rule 703, evidence need only be of a type reasonably relied upon by experts in the particular field to be admissible as a basis for an expert's opinion. Fed. R. Evid. 703.

As recognized by numerous courts, the substantial similarity requirement was developed to address prior occurrences involving the opposing party or product at

issue. The statistics evidence at issue here addresses the relative severity of this crash, and forms a basis for Defendants' experts' opinion on this subject. Thus, it has a different purpose than the type of evidence for which the substantial similarity requirement was developed. In Heath v. Suzuki Motor Corp., 126 F.3d 1391 (11th Cir. 1997), the plaintiff sought to exclude other vehicle rollover accidents offered by defendant Suzuki's expert because those other accidents were not substantially similar to the subject rollover crash. The Eleventh Circuit disagreed, and in so doing, explained the purpose and scope of the "substantial similarity" requirement:

The "substantial similarity" doctrine simply does not apply to the evidence presented by Suzuki's expert Lee Carr. **This evidentiary doctrine applies when one party seeks to admit prior accidents or occurrences involving the opposing party, in order to show, for example "notice, magnitude of the danger involved, the [party's] ability to correct a known defect, the lack of safety for intended uses, strength of a product, the standard of care, and causation."** In order to limit the substantial prejudice that might inure to a party should these past occurrences or accidents be admitted into evidence, courts have developed limitations governing the admissibility of such evidence, including the "substantial similarity doctrine". This doctrine applies to protect parties against the admission of unfairly prejudicial evidence, evidence which, because it is not substantially similar to the accident or incident at issue, is apt to confuse or mislead the jury.

In this evidentiary dispute, the reasons and policies which are the basis for the "substantial similarity" doctrine do not apply. The evidence involving rollovers of three dissimilar vehicles was offered by Suzuki to explain how rollovers occur. The introduction into evidence of these three dissimilar incidents for the purposes of illustrating the physical principles behind rollover accidents was not unduly confusing to the jury or prejudicial to the plaintiff. The evidence was not offered to reenact the accident; in fact, the vehicles involved, a Chevrolet Suburban, a Ford Escort, and a Jeep Wrangler, were pointedly dissimilar from the vehicle at issue here, a Suzuki Samurai. It was not an abuse of discretion for the trial court to conclude that whatever prejudice to Heath which might arise from the introduction of such evidence did not outweigh the probative value of such evidence. Therefore, we hold that the trial court's admission of evidence of three instances of rollover accidents of other dissimilar

vehicles was not an abuse of discretion in that the evidence was both relevant and not unduly prejudicial.

Heath, 126 F.3d at 1396-97 (citations omitted) (emphases added); See also Collins v. Navistar, Inc., 214 Cal. App. 4th 1486 (2013)³ (affirming trial court's admission of defendant's expert's statistical comparative risk testimony based on FARS and NASS, and noting that the "opinions were based upon databases maintained by the NHTSA. FARS was the most widely relied upon traffic safety database. Both the NASS/GES and the NASS/CDS were commonly used and relied upon by scientists, engineers, statisticians, and traffic safety professionals.").

Plaintiff's reliance on Jaramillo v. Ford Motor Co., 116 Fed. Appx. 76, 2004 WL 2370564 (9th Cir. 2004) is not persuasive. Jaramillo is an unpublished memorandum opinion, which under Ninth Circuit Rule 36-3, is not precedent. With a few limited exceptions (e.g., submittal under the doctrine of law of the case or rules of claim or issue preclusion), the decision **may not even be cited in Ninth Circuit courts**. Jaramillo, 116 Fed. Appx. at 76 (noting that the case was not selected for publication in the Federal Reporter, and referring the reader to Circuit Rule 36-3). Where such a decision is determined by the issuing court to be of little or no precedential value, this Court should place no greater faith in its holding.

Setting aside its improper citation, Plaintiff asserts that Jaramillo requires a different outcome than the weight of authority cited by Defendants would otherwise indicate. It does not. In Jaramillo, the defendant introduced "extensive comparative accident statistics" **as substantive evidence** at trial. Id., 116 Fed. Appx. at 77–78. These statistics purported to show how the vehicle at issue "performed relative to other

³ A copy of Collins is attached hereto as **Exhibit D**.

vehicles on the road,” but were derived from “all types” of rollover accidents, not just those that occurred under the same road conditions as the accident at issue. Id. at 78. Reversing the district court’s decision to admit these statistics as substantive evidence, the Ninth Circuit held that when “defendants like Ford [] attempt to compare their products to others to show the relative safety of their designs or a lack of notice” they “must show that their comparisons are based on accidents that are similar to the plaintiff’s accident.” Id. at 79. From this language, Plaintiff in this case leaps to the conclusion that the substantial similarity requirement also applies to statistical evidence admitted, not as substantive evidence, but merely to explain the basis of an expert’s opinion. But Jaramillo did not so hold—or even address the admissibility of statistics under Rule 703. Stated plainly, Plaintiff has mixed up the purpose for which statistical evidence was offered in Jaramillo, and the purpose for which Defendants offers such evidence in this case. Jaramillo dealt with the admissibility of statistics as substantive evidence; it has nothing to say about statistics used to establish a baseline measure of crash severity, or to explain the basis of an expert’s opinion.

Plaintiff’s reliance on Barker v. Deere & Co., 60 F.3d 158, 163 (3rd Cir. 1995), is also misplaced. Barker dealt with the admissibility of other incident evidence—e.g., other accidents alleged to be substantially similar to the incident which injured the plaintiff. Barker, 60 F.3d at 162 (holding that “when a plaintiff attempts to introduce evidence of **other accidents** as direct proof of a design defect, the evidence is admissible only if the proponent demonstrates that the accidents occurred under circumstances substantially similar to those at issue in the case at bar”) (emphasis added). This is a completely separate issue from the question of whether statistics

evidence is relevant in its own right and / or admissible under Rule 703 without a showing of substantial similarity.

Battistella v. DaimlerChrysler Motors, Co., 2004 WL 1336444⁴, E.D.La.,2004., Jun 14, 2004, is also inapposite. In that case, the plaintiff's expert sought to rely on consumer complaints, not NASS data, and data from a different database known as CIREN to support his opinions about Plaintiff's accident and injuries. Id. at 1. Consumer complaints are inherently less reliable than thorough investigations conducted by trained professionals. Moreover, it appears the expert in that case sought to use the accident data to support his opinion as to how plaintiff got injured in that specific case and to support his opinion that the deployment of an airbag would have prevented or lessened the plaintiff's injuries. Here, however, Defendants experts seek to rely upon NASS data as a relative indicator of the severity of this crash—not as a way to determine how Ms. Quinton was injured in this crash or to determine whether the full deployment of the airbag would have lessened the severity of her injuries.

The Hockensmith case cited by Plaintiff is also not persuasive. Hockensmith v. Ford, 116 Fed. Appx. 244 (Table) (11th Cir. 2004). Hockensmith is a "table decision" and its citation states "[t]he decision of the Court is referenced in a 'Table of Decisions Without Reported Opinions' appearing in the Federal Reporter. The Eleventh Circuit provides by rule that unpublished opinions are not considered binding precedent. They

⁴ A copy of Battistella is attached as **Exhibit E**. Plaintiff characterizes Battistella as a Fifth Circuit Court of Appeals decision, but it is in fact an opinion from the United States District Court for the Eastern District of Louisiana. Additionally, their citation included the following acronym: N.S.O.P., which means Not Selected for Official Publication. Therefore, if a Fifth Circuit Opinion was issued in Battistella, we, nor the Court, have access to it as it was not provided with Plaintiff's Memoranda as required by Local Civil Rule 7.05(A)(4) DSC.

may be cited a persuasive authority, provided that a copy of the unpublished opinion is attached to or incorporated within the brief, petition, or motion.” Additionally, this Court’s Local Rules require that “copies of any unpublished decisions” be provided in Memoranda. Local Civil Rule 7.05(A)(4) DSC. Having no access to this decision in order to analyze it for this Response, it should not be considered by the Court.⁵

In sum, the weight of authority is clear on this issue. The test of substantial similarity does not apply to statistics offered to show the basis of an expert’s opinion, or to provide a baseline for assessing risk and/or whether a product is unreasonably dangerous. Plaintiffs’ motion to exclude this evidence is founded on nothing more than inapplicable law and unsupported attorney statements, and much be denied.

d. The rollover statistics are not based on FARS

Plaintiff wrongly suggests that the quarter turn rollover statistics are based on FARS. They are not. The data is from NASS, which is discussed above, and NASS data reflects accidents that were analyzed by NHTSA investigators, and is not—as Plaintiff incorrectly states—based on police reports. The individual cases from NASS contain much more technical information and analysis than one would find in a police report alone. See Excerpt from R. Bower dep. Exh. 14, NASS CDS cases. Despite Plaintiff’s mischaracterization of the FARS data, and her attack on its reliability and admissibility, it is interesting to note that Plaintiff expects to offer multiple exhibits at trial that contain FARS data. See, e.g., Plaintiff’s Trial Exh. 28 (“Development of Rollover

⁵ Plaintiff also relies on an unpublished excerpt from a hearing transcript in Kenneally v. Suzuki Motor Corp., a case apparently filed 20 years ago and which is apparently from the Western District of Washington. The Court should disregard this authority because: a) an excerpt from a transcript, taken out of context, is not helpful or persuasive; and b) Plaintiff did not provide the complete transcript, nor were Defendants able to locate this transcript on their own and therefore, Plaintiff has violated Local Civil Rule 7.05(A)(4) DSC.

Curtain Shield Airbag System,” at p. 1, Bates No. 175151); Plaintiff’s Trial Exh. 59 (“TMC The Proposal for the Voluntarily Safety Standard for Rollover Curtain Shield Airbag System. 0000062CA.001-22,” at p. 4), attached hereto as **Exhibit F**. Plaintiff’s expert Joseph Burton has also referenced literature that analyzes FARS data. See Plaintiff’s Trial Exh. 271, item no. 55, “CRASH EXPOSURE AND CRASHWORTHINESS OF SPORT UTILITY VEHICLES,” C. Malliaris and Kennerly H. Digges, SAE No. 1999-01-0063, pages 299-370, 1999. See **Exh. B**.

III. CONCLUSION

Defendants respectfully request that the Court deny Plaintiff’s Motion *In Limine* No. 3, and allow the admission of statistical evidence as both relevant as a baseline for assessing the severity of the accident and as an appropriate foundation for opinions held by Defendants’ experts.

Respectfully submitted

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